

LISTING OF CLAIMS

1-22. Canceled

23. (Currently Amended) A medical device comprising:

a surface configured to move in relation to an adjacent surface; and

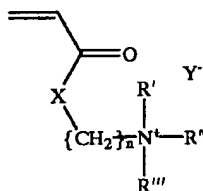
a lubricious coating applied to the surface, the lubricious coating

comprising a quaternary amine acrylate hydrogel polymer that has been cross-linked to a multi-functional monomer, the multi-functional monomer having been imbibed into the surface of the medical device, the multi-functional monomer comprising an acrylate or an ammonium compound.

24. (Original) A medical device as defined in claim 23, wherein the surface of the device is made from a thermoplastic or a thermoset.

25. (Original) A medical device as defined in claim 23, wherein the surface of the device is made from polyvinyl chloride.

26. (Currently Amended) A medical device as defined in claim 23, wherein the quaternary amine acrylate hydrogel polymer is formed from a monomer having the structure:



wherein n is an integer of 2 to 3; R', R'' and R''' are independently selected from the group consisting of H, C₁ to C₁₆ alkyl, aryl, arylamine, alkylamine, alkaryl and aralkyl; X

is selected from the group consisting of O and NH; and Y⁻ is an acceptable anionic counterion to the N⁺ of the quaternary amine.

27. (Original) A medical device as defined in claim 23, wherein the medical device comprises tracheal suction device, a catheter, a guidewire, a stylet, an enteral feeding device, an introducer, or an endotracheal tube.

28. (Original) A medical device as defined in claim 23, wherein the surface of the device is made from a silicone or a urethane.

29. (Currently Amended) A medical device as defined in claim 23, wherein the quaternary amine acrylate hydrogel polymer comprises acryloyloxyalkyl-trialkyl-substituted ammonium salt, an acryloyloxyalkyl-aryl-substituted ammonium salt, an acrylamidoalkyl-trialkyl-substituted ammonium salt, or an acrylamidoalkyl-aryl-substituted ammonium salt.

30. (Currently Amended) A medical device as defined in claim 23, wherein the quaternary amine acrylate hydrogel polymer comprises acryloyloxyethyltrimethyl ammonium chloride, or acryloyloxyethyltrimethyl ammonium methyl sulfate.

31. (Original) A medical device as defined in claim 23 wherein the multi-functional monomer comprises an alkoxylated acrylate.

32. (Original) A medical device as defined in claim 23 wherein the multi-functional monomer comprises a triacrylate.

33. (Original) A medical device as defined in claim 23, wherein the multi-functional monomer comprises a tetraacrylate, a pentaacrylate, a hexaacrylate, or a diacrylate.

34. (Original) A medical device as defined in claim 23, wherein the multi-functional monomer comprises an ethoxylated trimethylolpropane triacrylate, a

propoxylated glyceryl triacrylate, trimethylolpropane triacrylate, pentaerythritol triacrylate, a propoxylated glyceryl triacrylate, a propoxylated trimethylolpropane triacrylate, trimethylolpropane trimethacrylate, tris (2-hydroxy ethyl) isocyanurate triacrylate, di-trimethylolpropane tetraacrylate, dipentaerythritol pentaacrylate, an ethoxylated pentaerythritol tetraacrylate, a dipentaerythritol pentaacrylate, a pentaacrylate ester, pentaerythritol tetraacrylate, or a caprolactone modified dipentaerythritol hexaacrylate.

35. (Previously Presented) A medical device as defined in claim 23, wherein the multi-functional monomer comprises N,N-Dimethylaminoethyl acrylate dimethylsulfate, N,N-Dimethylaminoethyl acrylate methylchloride, N,N-Dimethylaminoethyl methacrylate dimethylsulfate, N,N-Dimethylaminoethyl methacrylate methylchloride, Diallyldimethylammonium chloride, acryloxyethyldimethyl benzyl ammonium chloride, acryloxyethyltrimethyl ammonium chloride, methacryloxyethyldimethyl benzyl ammonium chloride, or methacryloxyethyltrimethyl ammonium chloride.

36. (Original) A medical device as defined in claim 23, wherein the multi-functional monomer comprises an ethoxylated trimethylolpropane triacrylate.

37-50. Canceled